CHAPTER 4

RESULTS

The results of this study were based on the responses of the professional nurses who were working in a 500-bed private hospital in Bangkok during the study period of October to November 1999. The total accessible numbers of the subjects were two hundreds and sixty (260). Data from 236 professional nurses who met the eligibility criteria and completed the questionnaire were analyzed as the sample group of this study. Both descriptive and analytic results have been presented as follows.

The first part of the questionnaire elicited demographic data and general work related factors in terms of age, sex, marital status, education, salary, length of service, shift hour, nursing division, and distance to work.

Table 4.1   Frequency and percentage of demographic characteristics

Variables	n	%
Age group (year)		
21-25	29	12.3
26-30	115	48.7
31-35	77	32.6
36 years up	15	6.4
Mean = 29.7		
Min, max = 24, 58		
Sex		
Male	2	0.8
Female	234	99.2
Marital status		
Single	162	68.6
Married	74	31.4

Table 4.1 (Cont.)

Variables	n	%
Education		
Bachelor degree	230	97.5
Master degree	6	2.5
Salary (baht)		
10,000-15,000	66	28.0
15,001-20,000	146	61.9
20,001-25,000	20	8.5
25,001 baht up	4	1.7

Table 4.1 showed the distribution of demographic data variables. Age was categorized into four groups. The study results showed that majority of the professional nurses were of age between 26-30 years (48.7%). For distribution of sex, 99.2% were female. This group might be energetic and enthusiastic. It was reported that 68.6% were single, 31.4% were married. Two educational level were represented, bachelor degree (97.5%) and master degree (2.5%). Sixty one percent of professional nurses had salary between 15,001-20,000 baht, 28.0% had salary between 10,000-15,000 baht, and only 1.7% had salary more than 25,000 baht.

Table 4.2 Frequency and percentage of general work related factors

Variables	n	%
Length of service (year)		
1.0-3.0	52	22.0
3.1-6.0	62	26.3
6.1-9.0	82	34.7
9.1 years up	40	16.9
Position		
Staff	236	100
Shift hour		
To take only one turn	40	16.9
To take all three turns	163	69.1
Other turns	33	14

Table 4.2 (Cont.)

Variables	n	%
Distance to work		
Dormitory	119	50.4
Less than 1 hour	67	28.4
1-2 hours	50	21.2
Nursing division		
Emergency Service Center	13	5.5
Labor Room	12	5.1
Recovery Room	11	4.7
Operating Room	24	10.2
Incentive care unit	32	13.6
Outpatient Department	25	10.6
Pediatric Department	18	7.6
Medical-Surgical	57	24.2
Obstetric Department	14	5.9
Hemodialysis Department	12	5.1
Nursery Department	18	7.6

All of professional nurses were working as staff nurses (100%). 34.7% of professional nurses had been working in this hospital between 6-9 years. Most of the professional nurses stayed in the hospital dormitory (50.4%) and about 69.1% had taken all three turns of shift hours (morning, afternoon and night shift). Distribution of working department revealed, in operating room, incentive care unit, outpatient department and medical-surgical had more than 10% professional nurses in each department, while the rest of the departments had less than 10% of professional nurses working in.

Part 2 of the questionnaire used in this study asked that each professional nurse reacted to 44 items. These items dealt with the subjects' feeling towards specific aspects of their jobs. In securing a job satisfaction score for the professional nurses, regarding a specific aspect of the job a score was secured on each of the following aspects; income, autonomy, task requirement, organizational policy, interaction, and professional status. The items in each component were phrased half positively and half negatively. In the process of scoring, the negative

questions were reversed so that a higher component score denoted a higher level of satisfaction with that component.

Table 4.3 Mean and standard deviation for items estimated in income

Items	mean	S.D.
1 (My present salary is satisfactory)	3.16	1.46
8 (Excluding myself, it is my impression that a lot of nursing service personnel at this hospital dissatisfied with their pay)	2.75	1.53
14 (Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable)	3.32	1.42
21 (The present rate of increase in pay for nursing service personnel at this hospital is not satisfactory)	2.33	1.49
32 (From what I hear from and about nursing service personnel at other hospital, we at this hospital are being fairly paid)	3.35	1.37
44 (An upgrading of pay schedules for nursing personnel is needed at this hospital)	1.99	1.19
Total	2.82	1.50

Table 4.3 showed that the professional nurses were not satisfied with all the items on the aspect of income. As revealed from the items responses, the responses to the statement concerning income yielded mean score 2.82 which illustrated low level of satisfaction. The mean

score indicating the greatest dissatisfaction in the statement was "the pay schedule at this hospital".

Following the criterion of classification explained in chapter 3, 91.5% had low level of satisfaction in income, 8.5% had medium level, and none was in high level in income. This showed that the professional nurses were not satisfied with the income provision of the hospital. (See summary in table 4.9).

Table 4.4 Mean and standard deviation for items estimated in autonomy

Items	mean	S.D.
7 (I fell that I'm supervised more closely than I need to be, and more closely than I want to be)	4.68	1.47
13 (I have a better say in the planning of nursing activities at this hospital)	5.25	1.29
17 (I have many work to take responsibility but limited of chance for decision making and commanding)	3.86	1.54
20 (On my service, my supervisors make all the decision. I have little direct control over my own work)	3.63	1.73
26 (I have enough freedom to do my work)	4.27	1.45
30 (Sometime I feel frustrated to work because all activities seemed to be readily written how to do)	3.86	1.55
31 (I am sometime required to do things on my job that are against my better professional nursing judgement)	4.88	1.54

Items	mean	S.D.
43 (I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up)	4.29	1.49
Total	4.34	1.59

As can be seen in the data reported in table 4.4. The autonomy aspect, statement 13 showed the highest mean score of 5.25. Statement 7, 26, 31, and 43 were almost agreed which yielded mean scores of 4.68, 4.27, 4.88, and 4.29 respectively. The rest of the statement, 17, 20, and 30 had relatively low level of satisfaction. The total mean score of autonomy was 4.34 which illustrated medium level of satisfaction.

Following the criterion of classification explained in chapter 3, 32.2% had low level of satisfaction in autonomy, 58.5% had medium level, and only 9.3% had high level of satisfaction in autonomy. (See summary in table 4.9).

Table 4.5 Mean and standard deviation for items estimated in task requirement

Items	mean	S.D.
4 (There is too much clerical and "paper work" required of nursing personnel in this hospital)	2.57	1.43
11 (I think I could do a better job if I don't have to do so much all the time)	2.99	1.69
22 (I am satisfied with the types of activities that I do on my job)	5.04	1.42
24 (I have plenty of time and opportunity to discuss patient	4.80	1.28

care problems with other nursing service personnel)		
29 (I spend as much time as I'd like to take care of patients directly)	4.23	1.51
36 (I could delivery much better care if I had more time with each patient)	2.60	1.37
Total	3.71	1.77

The items responses revealed that the statements 4, 11, and 36 yielded very low mean scores of 2.57, 2.99, and 2.60 respectively. The rest of the statements 22, 24, and 29 had relatively medium level of satisfaction. Total mean score of work requirement was 3.71, which illustrated low level of satisfaction.

Following the criterion of classification explained in chapter 3, 69.5% had low level of satisfaction in work requirement, 29.2% had medium level, and only 1.3% had high level of satisfaction in work requirement. (See summary in table 4.9).

I19335143.

Table 4.6 Mean and standard deviation for items estimated in organizational policy

Items	mean	S.D.
5 (Nursing personnel in this hospital have the right to request and exchange the duty shift)	5.83	1.61
12 (There is a great gap between the administration of this hospital and the daily problem of the nursing service)	2.89	1.38
18 (There are limited of opportunities for advancement of nursing personnel at this hospital)	2.67	1.53
25 (There is ample opportunity for nursing staff to participate in the administrative decision making process)	3.44	1.48
33 (Administrative decision at this hospital interfere too much with patient care)	3.22	1.42
40 (I have all the voice in planning policies and procedures for this hospital and my unit that I want)	3.87	1.52
42 (The nursing administrators generally consult with the staff on daily problems and procedures)	3.78	1.59
Total	3.67	1.74

As data reported in table 4.6, the highest mean score 5.83 indicating the greatest satisfaction in the aspect to the statement 5. The rest of the statements had mean scores in low level. The total mean score

of the items in organizational policy was 3.67 which indicated the low level of satisfaction in organizational policy.

Following the criterion of classification explained in chapter 3, 66.9% had low level of satisfaction in organizational policy, 31.8% had medium level, and only 1.3% had high level of satisfaction in organizational policy. (See summary in table 4.9).

Table 4.7 Mean and standard deviation for items estimated in interaction

Items	mean	S.D.
3 (The nursing personnel on my service don't hesitate to pitch in and help one another out when things get in a rush)	5.49	1.06
6 (Physicians in general are good cooperative with the nursing staff on my unit)	4.87	1.09
10 (New employees are not quickly made to "feel at home" at my unit)	4.39	1.47
16 (There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service)	4.98	1.33
19 (There is a lot of teamwork between nurses and doctors on my unit)	4.87	1.19
23 (The nursing personnel on my service are not as friendly and outgoing as I would like)	4.37	1.59
28 (There is a lot of "rank consciousness" on my unit,	5.59	1.45

nursing personnel seldom mingle with others of lower rank)		
35 (I wish that the physicians at this hospital would accept the skills and knowledge of nursing personnel more than this)	2.39	1.30
37 (Physicians at this hospital generally understand and appreciate what the nursing staff does)	3.95	1.37
39 (Physicians at this hospital generally look down upon nursing personnel's abilities)	4.05	1.44
Total	4.49	1.60

Table 4.7 showed that the mean score on the statement 28 was indicated as being highest mean score 5.59. There were two statements that had low mean scores 35 and 37, 2.39 and 3.95 respectively. But other remaining statement yielded the medium mean scores. Total mean score of interaction was 4.49 which illustrated medium level of satisfaction.

Following the criterion of classification explained in chapter 3, 23.7% had level of satisfaction in interaction, 72.5% had medium level, and 3.8% had high level. (See summary in table 4.9).

Table 4.8 Mean and standard deviation for items estimated in professional status

Items	mean	S.D.
2 (It's my general impression that most of the people really appreciate the way work is organized and done in this hospital)	5. 27	1.24
9 (I can't help but feel that others don't appreciate my job about what I have to do)	5.20	1.56
15 (There is no doubt whatever in my mind that what I do on my job is really important)	5.91	1.19
27 (What I do on my job doesn't add up to anything really significant)	5.34	1.34
34 (It makes me proud to talk to other people about what I do on my job)	5.42	1.34
38 (If I had a decision to make all over again, I would still go into nursing)	3.11	1.87
41 (My particular job really doesn't require much skill or "know-how"	6.24	1.03
Total	5.21	1.67

According to table 4.8, two statements showed very high satisfaction in professional status, 15 and 41, which mean scores 5.91 and 6.24 respectively. Only one statement 38 had low mean score of 3.11. The rest of the statements were in the medium level of satisfaction in

professional status. The total mean score of professional status was 5.21, which indicated medium satisfaction level.

Following the criterion of classification explained in chapter 3, 4.7% had low level in professional status, 62.3% had medium level and up to 33.1% had high level. (See summary in table 4.9).

Table 4.9 Summary of frequency and percentage distribution of the specific work related factors of the professional nurses (Part 2)

Variables	Low level		Medium		High level		Mean	S.D.
	n	%	n	%	n	%		
Income	216	91.5	20	8.5	-	-	2.82	1.50
Autonomy	76	32.2	138	58.5	22	9.3	4.34	1.59
Task requirement	164	69.5	69	29.2	3	1.3	3.71	1.77
Organizational policy	158	66.9	75	31.8	3	1.3	3.67	1.74
Interaction	56	23.7	171	72.5	9	3.8	4.49	1.60
Professional status	11	4.7	147	62.3	78	33.1	5.21	1.67

Mean 4.04   S.D.   1.79
Median 4.06   Minimum 2.61   Maximum 5.43

Table 4.10 Summary of overall job satisfaction scores in each specific work related factors (Part 3)

Variables	Mean	S.D.	Median	Min.	Max.
Income	3.17	1.48	3.00	1.00	7.00
Autonomy	4.51	1.41	5.00	1.00	7.00
Task requirement	3.98	1.16	5.00	1.00	7.00
Organizational policy	3.89	1.37	4.00	1.00	7.00
Interaction	4.92	1.10	5.00	1.00	7.00
Professional status	5.23	1.20	5.00	1.00	7.00

Table 4.11   Mean score of job satisfaction between part 2 and part 3

Factors	Part 2	Part 3	Level
Income	2.82	3.17	Low
Autonomy	4.34	4.51	Medium
Task requirement	3.71	3.98	Low
Organizational policy	3.67	3.89	Low
Interaction	4.45	4.92	Medium
Professional status	5.21	5.23	Medium
Total	4.04	4.28	Medium

From table 4.11, when compared the mean score of job satisfaction in each component between part 2 and part 3, the mean scores were parallel. The highest total mean score was professional status, followed by interaction, autonomy, task requirement, organizational policy, and the lowest mean score was income.

Table 4.12   Level of overall job satisfaction of professional nurses

Level of job satisfaction	n	%
High	-	-
Medium	133	56.4
Low	103	43.6
Total	236	100

Mean   4.82   S.D.   1.34
Median   5.00   Min.   1.00   Max.   7.00

From table 4.12, following the criterion of classification explained in chapter 3, 56.4% of the professional nurses had medium level of job satisfaction, 43.6% had low level of satisfaction, and none of them had high level. The mean score of overall job satisfaction was 4.82, which was in the medium level of job satisfaction.

Association between job satisfaction and various characteristics

Mean scores of job satisfaction were compared to see if they were significant different among the various categories of demographics variables. T-test for two category variables and one-way-anova for multiple category variables. Variables were used at 0.05 significant level. None of them, however, could show statistical significant difference between their mean scores of job satisfaction.

Table 4.13   Association between overall job satisfaction and demographic characteristics

Variables	Job satisfaction		
	Mean	S.D.	P-value
Age group (year)			
21-25	4.97	1.45	
26-30	4.71	1.28	0.433
31-35	4.86	1.41	
36 years up	5.27	1.39	
Marital status			
Single	4.86	1.46	0.767
Married	4.79	1.38	
Education			
Bachelor degree	4.61	1.35	0.216
Master degree	4.50	1.40	
Salary (baht)			
10,000-15,000	4.74	1.38	
15,001-20,000	4.86	1.28	0.945
20,001-25,000	4.85	1.81	
25,000 baht up	4.75	0.92	

Among different age groups, above 36 years old nurses secured highest mean job satisfaction score, therefore, this age group is to have highest level job satisfaction among all four age groups. The nurses between 21 to 25 years age group secured second position in terms of mean job satisfaction score and followed by 31 to 35 years age group nurses under third position and 26 to 30 years age group nurses in the

least job satisfaction scores position respectively. However, all four age groups, the mean job satisfaction scores were closed to one another and also statistically not significant, therefore it should be assumed that the job satisfaction level among the groups were not much different. (See summary in table 4.13)

Nurses in the single status had secured higher mean job satisfaction score than those in married group, it was that single group had the higher level of job satisfaction between two groups of marital status. However, the mean job satisfaction scores of two marital status groups were similar and the difference was not statistically significant, so that level of job satisfaction was not different. (See summary in table 4.13)

Nurses with bachelor degree had higher mean job satisfaction score, therefore, they had higher level of job satisfaction compared to those with master degree. But the mean difference between these two groups were very closed, therefore, level of job satisfaction was similar. (See summary in table 4.13)

Nurses with salary between 15,001 to 20,000 baht had secured mean scores of job satisfaction very close to those with salary 20,001 to 25,000 baht with mean scores 4.86 and 4.85 respectively. Nurses with salary between 10,000 to 15,000 baht had secured the mean score of job satisfaction very close to those with salary more than 25,001 baht. However, mean scores of four groups of salary were closed to one another and also difference was not statistically significant. (See summary in table 4.13)

Table 4.14   Association between overall job satisfaction and general
work related factors

Variables	Job satisfaction		
	Mean	S.D.	P-value
Nursing division			
Emergency Service Center	4.62	1.61	
Labor Room	5.08	1.16	
Recovery Room	5.27	1.10	
Operating Room	4.96	1.30	
Intensive Care Unit	4.56	1.44	
Outpatient Department	4.28	1.49	0.321
Pediatric Department	5.11	1.41	
Medical-Surgical	4.81	1.33	
Obstetric Department	5.14	1.10	
Hemodialysis Department	4.58	1.16	
Nursery Department	5.28	1.32	
Length of service (year)			
1.0-3.0	4.88	1.42	
3.1-6.0	4.79	1.27	0.601
6.1-9.0	4.71	1.25	
9.1 years up	5.05	1.57	
Distance to work			
Dormitory	4.87	1.25	
Less than 1 hour	4.97	1.36	0.175
1-2 hours	4.52	1.53	
Shift hour			
To take only one turn	4.71	1.44	
To take all three turns	4.81	1.33	0.067
Other turns	5.73	0.79	

Mean scores of job satisfaction were compared to see if they were significantly different among the various categories of general work related factors. One-way-anova was used at 0.05 significant level. None of the variables could show statistically significant difference between their mean scores of job satisfaction.

Nurses' shift hour, being only the variables that came close to the significant different mean score of job satisfaction with p-value=0.067. When looking at mean scores, those professional nurses who take only one turn (mostly morning) had least mean job satisfaction score, therefore, that nurses who take only one turn had lowest level of job satisfaction. The professional nurses who take all three turns (morning, afternoon, night) had the medium level of job satisfaction, and those who take other turns (morning to 8 p.m.) had the highest mean score of job satisfaction. (See summary in table 4.14)

Those who had length of service more than 9 years secured the highest mean score, the highest level of job satisfaction. The second highest score was observed among nurses between 1.0 to 3.0 years of service duration. Nurses with length of service between 3.1 to 6.0 years and 6.1 to 9.0 years had similar mean scores of job satisfaction. However, the mean job satisfaction scores among all groups were similar, thus the level of job satisfaction be similar too. (See summary in table 4.14)

Nurses who worked in nursery department had the highest mean score of satisfaction, highest level of satisfaction. The least mean score of satisfaction was in outpatient department and it was assumed to have lowest level of job satisfaction. However, the mean job satisfaction scores among all units were not much different, it should therefore be assumed that levels of job satisfaction among them were similar. (See summary in table 4.14)

Professional nurses who take less than 1 hour of distance to work had the highest mean score of job satisfaction, to have the highest level of job satisfaction. The second highest score were observed among nurses who stay in the hospital dormitory. Nurses who had distance to work 1 to 2 hours had the lowest mean satisfaction score. However, the mean different between three groups were not much different, therefore, that levels of job satisfaction were similar. (See summary in table 4.14)

Factors affecting job satisfaction

Following the data analysis, specific work related factors under study were included into the stepwise multiple regression model as it was necessary to see if the obtained relationship between independent variables and dependent variable are altered when all these factors are considered to be playing simultaneously. In addition, this multiple regression analysis was also intend to know which variables or combination of them could explain a more variation in the job satisfaction and hold more statistically significant predictive power.

Table 4.15 Stepwise multiple regression of the factors affecting job satisfaction

Variables	B	S.E.	t	Sig.
Professional status	.611	.112	5.458	0.000
Task requirement	.350	.099	3.528	0.001
Organizational policy	.284	.116	2.442	0.015
Autonomy	.210	.099	2.121	0.035
Constant	31.614	2.626	29.579	0.000
R^2 .338				

Among all variables included in the stepwise regression model, factor professional status was included in the step number 1 of regression model. When controlling the effect of all other variables including task requirement, organizational policy, and autonomy, professional status obtained highest t=5.458 at significance P=0.000.

In the second step of the stepwise multiple regression model, the variable task requirement was included along with professional status. When controlling the effect of professional status, organizational policy, autonomy, and other variables on job satisfaction, task requirement obtained t=3.528 at the significance P=0.001.

The third step of stepwise multiple regression, factor organizational policy was included along with professional status and task requirement. When the effect of professional status, task requirement, autonomy, and other variables were controlled, organizational policy obtained t=2.442 at significance P=0.015.

In the final regression model of 4th step, factor autonomy was included along with professional status, task requirement, and organizational policy. When the effect of professional status, task requirement, organizational policy, and other variables were controlled, autonomy obtained t=2.121 at the significance P=0.035.

In conclusion, the factors affecting of job satisfaction of professional nurses in a 500-bed private hospital were the professional status, task requirement, organizational policy, and autonomy. Professional status found to be the highest important factor affecting job satisfaction and followed by task requirement, organizational policy and autonomy respectively. Altogether, total 33.8% of variation of job satisfaction were explained by these 4 factors. When the degree of these factors can be altered, the scores of satisfaction will also be altered.

Association between the independent variables

Though not mentioned in the study objectives, it was felt useful to determine if there was any relationship between the independent variables under study. Relationships between the category and with category were examined using the statistical analysis tools, means comparison and one-way-anova. However, only those variables that had obtained significant results were discussed and presented in table 4.16.

Table 4.16 Association   between   income   and   demographic
characteristics and general work related factor

Variables	Income		
	Mean	S.D.	P-value
Age group (year)			
21-25	3.07	1.31	
26-30	2.87	1.45	0.007
31-35	3.57	1.45	
36 year up	3.60	1.72	
Length of service (year)			
1.0-3.0	3.12	1.52	
3.1-6.0	2.79	1.44	0.028
6.1-9.0	3.24	1.31	
9.1 years up	3.68	1.70	

Table 4.16 showed a significant relationship between income and age groups of professional nurses at p-value=0.007. While looking at mean scores, those professional nurses with more than 36 years of age had the highest mean score, therefore assumed to be the highest level of satisfaction on income. While the professional nurses age between 26-30 years old had least mean score, the lowest level of satisfaction on income.

The relationship between income and length of service was significant at p-value=0.028. The professional nurses who worked more than 9 years had the highest mean score of satisfaction on income. While those who had length of service between 3.1-6.0 years had least mean score of satisfaction, this group of professional nurses had the lowest level of satisfaction on income.

Table 4.17 Association between task requirement and general work related factors

Variables	Task requirement		
	Mean	S.D.	P-value
Distance to work			
Dormitory	4.95	1.10	
Less than 1 hour	5.21	0.95	0.032
1-2 hours	4.64	1.48	
Nursing division			
Emergency Service Center	5.15	0.90	
Labor Room	5.67	0.65	
Recovery Room	4.82	1.25	
Operating Room	5.25	0.74	
Intensive Care Unit	5.03	1.28	0.028
Outpatient Department	4.40	1.44	
Pediatric Department	5.39	1.14	
Medical-Surgical	4.65	1.27	
Obstetric Department	5.14	1.17	
Hemodialysis Department	4.83	0.72	
Nursery Department	5.17	0.86	

There was significant between work requirement and distance to work at p-value=0.032. Professional nurses who take less than 1 hour of distance to work had highest mean score, the highest level of satisfaction on work requirement. Those who had to take 1-2 hours of distance to work had least mean score, it was assumed to be the lowest level of satisfaction on work requirement. (See summary in table 4.17)

A significant relationship was found between work requirement and nursing division with p-value=0.028. Labor room seemed to have the highest mean score of satisfaction on work requirement, the highest level of satisfaction with the existing work requirement available in their job. (See summary in table 4.17)

Table 4.18   Association   between   interaction   and   demographic
characteristics

Variables	Interaction		
	Mean	S.D.	P-value
Marital status			
Single	5.10	1.13	0.027
Married	4.67	1.31	

Finally, a significant relationship was also found between interaction and nurse marital status with p-value=0.027. Nurses with single status seemed to have higher satisfaction in terms of mean score of interaction obtained by this group. (See summary in table 4.18)

Suggestions and strategies to improve job satisfaction in the prospective of professional nurses

These suggestions and compliant were concluded from 158 professional nurses who answered the questionnaire in part 4.

Table 4.19   Frequency of suggestions and complaint of professional nurses

	Suggestions	Frequency
1.	The pay schedules for the nursing personnel at this hospital should be upgraded	120
2.	The non-nursing responsibilities such as paper work should be reduced or eliminated	86
3.	The shift exchange at this hospital should be more flexible	42
4.	Lack of opportunity for advancement	19
5.	Lack of autonomy and professional recognition	6
6.	The administrators at this hospital should opened wide and listen to all comments of the employees, complaint and problems should be solved quickly	5